

18" Band Saw

(Model 28-682)



PART NO. 911988 - 09-24-03
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To learn more about DELTA MACHINERY
visit our website at: www.deltamachinery.com.

For Parts, Service, Warranty or other Assistance,

please call 1-800-223-7278 (In Canada call 1-800-463-3582).

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols to the right. Please read the manual and pay attention to these sections.

⚠ DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

⚠ WARNING **SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES



⚠ WARNING **READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

IMPORTANT SAFETY INSTRUCTIONS

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility. For additional information please visit our website www.deltamachinery.com.

⚠ WARNING This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305
(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)

1. **FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
2. **USE CERTIFIED SAFETY EQUIPMENT.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
3. **DRESS PROPERLY.** Do not wear tie, gloves, or loose clothing. Remove watch, rings, and other jewelry. Roll up your sleeves. Clothing or jewelry caught in moving parts can cause injury.
4. **DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
5. **MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
6. **CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced.** Damaged parts can cause further damage to the machine and/or injury.
7. **KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
8. **KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
9. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury.
10. **USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
11. **REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
12. **USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
13. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
14. **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
15. **SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
16. **FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
17. **DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
18. **DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
19. **NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
20. **NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
21. **TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.
22. **MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
23. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
24. **THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas, and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR BAND SAWS

⚠ WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

1. **DO NOT OPERATE THIS MACHINE UNTIL** it is assembled and installed according to the instructions.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not familiar with the operation of this tool.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections.
4. **USE THE GUARDS WHENEVER POSSIBLE.** Check to see that they are in place, properly adjusted, secured, and working correctly.
5. **USE PROPER BLADE SIZE** and type.
6. **ADJUST THE UPPER BLADE GUIDE** so that it is about 1/8" above the workpiece.
7. **PROPERLY ADJUST** the blade tension, tracking, blade guides, and blade support bearings.
8. **KEEP ARMS, HANDS, AND FINGERS** away from the blade.
9. **AVOID AWKWARD OPERATIONS** and hand positions where a sudden slip could cause a hand to move into the blade.
10. **NEVER START THE MACHINE** before clearing the table of all objects (tools, scrap pieces, etc.).
11. **NEVER START THE MACHINE** with the workpiece against the blade.
12. **HOLD WORKPIECE FIRMLY** against the table. DO NOT attempt to saw a workpiece that does not have a flat surface against the table.
13. **HOLD WORKPIECE FIRMLY** and feed into blade at a moderate speed.
14. **NEVER REACH UNDER THE TABLE** while the machine is running.
15. **TURN THE MACHINE "OFF"** to back out of an uncompleted or jammed cut.
16. **MAKE "RELIEF" CUTS** prior to cutting long curves.
17. **TURN THE MACHINE "OFF"** and wait for the blade to stop prior to cleaning the blade area, removing debris near the blade, removing or securing workpiece, or changing the angle of the table. A coasting blade can be dangerous.
18. **NEVER PERFORM LAYOUT, ASSEMBLY,** or set-up work on the table/work area when the machine is running.
19. **TURN THE MACHINE "OFF" AND DISCONNECT THE MACHINE** from the power source before installing or removing accessories, before adjusting or changing set-ups, or when making repairs.
20. **TURN THE MACHINE "OFF"**, disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE "OFF" POSITION** to prevent unauthorized use.
21. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

⚠ DANGER DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

Your machine is wired for 230 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

⚠ DANGER THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating between 150 - 250 volts, inclusive:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. C, the machine will have a grounding plug that looks like the plug illustrated in Fig. C. Make sure the machine is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this machine. If the machine must be re-connected for use on a different type of electric circuit, the re-connection should be made by qualified service personnel; and after re-connection, the machine should comply with all local codes and ordinances.

⚠ DANGER IN ALL CASES, MAKE CERTAIN THAT THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

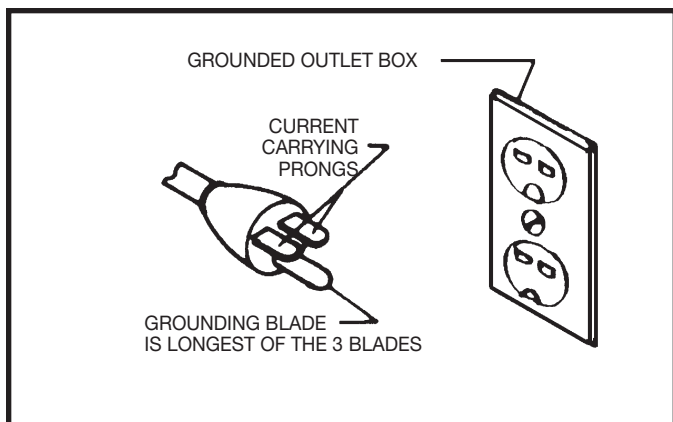


Fig. A

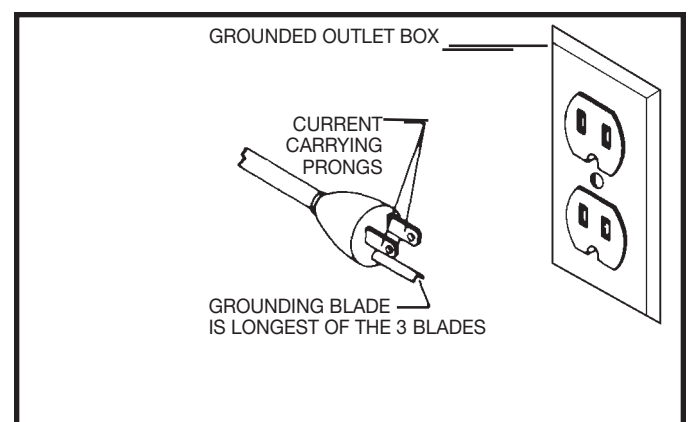


Fig. C

EXTENSION CORDS

CAUTION Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	240	up to 50	18 AWG
0-6	240	50-100	16 AWG
0-6	240	100-200	16 AWG
0-6	240	200-300	14 AWG
6-10	240	up to 50	18 AWG
6-10	240	50-100	16 AWG
6-10	240	100-200	14 AWG
6-10	240	200-300	12 AWG
10-12	240	up to 50	16 AWG
10-12	240	50-100	16 AWG
10-12	240	100-200	14 AWG
10-12	240	200-300	12 AWG
12-16	240	up to 50	14 AWG
12-16	240	50-100	12 AWG
12-16	240	GREATER THAN 100 FEET NOT RECOMMENDED	

Fig. D

FUNCTIONAL DESCRIPTION

FOREWORD

Delta Model 28-682 is a 18" wood cutting band saw.

NOTICE: The manual cover photo illustrates the current production model. All other illustrations are representative only and may not depict the actual color, labeling, or accessories and are intended to illustrate technique only.

UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene. (Do not use acetone, gasoline or lacquer thinner for this purpose.) After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

1. Remove the four bolts (A) Fig. 1 (three of which are shown) that attach the saw (B) to the shipping skid.
2. Save the four bolts to permanently mount the saw to a supporting surface.

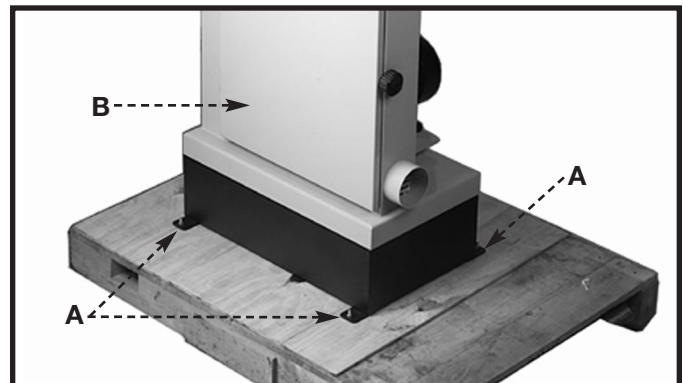


Fig. 1

⚠ WARNING This machine is heavy and can tilt easily. Use four or more people to slide the machine off of the shipping skid.

28-682 BAND SAW PARTS

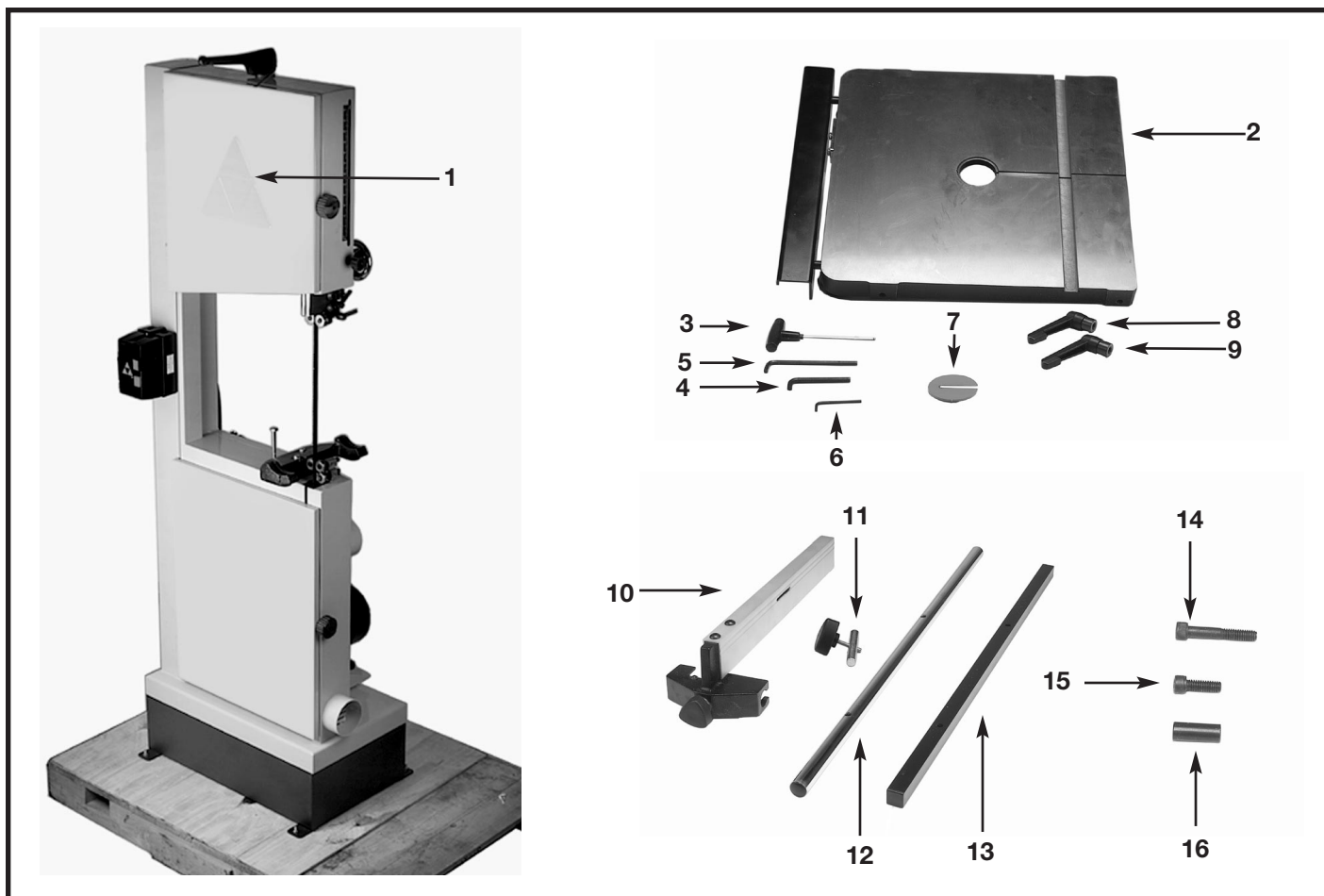


Fig. 2

1. Band Saw
2. Table
3. 3mm T-Handle Wrench
4. 6mm Hex Wrench
5. 5mm Hex Wrench
6. 3mm Hex Wrench
7. Table Insert
8. Trunnion Lock Knob
9. Trunnion Lock Knob
10. Fence
11. Resaw Guide
12. Front Fence Rail
13. Rear Fence Rail
14. 1/4-20 x 1-1/2" Socket Head Screw (2)
15. 1/4-20 x 1" Socket Head Cap Screw (2)
16. Spacer (2)

ASSEMBLY

⚠ WARNING For your own safety, do not connect the machine to the power source until the machine is completely assembled, and you read and understand the entire instruction manual.

ON/OFF SWITCH

1. Remove the two screws (A) Fig. 3 on the cover of the on/off switch, and remove the front cover.
2. Align the two holes of the On/Off switch with the two holes (B) Fig. 4 on the front of the saw.
3. Thread the two screws (located loose in the switch box) into the two holes in the front of the saw and tighten securely.
4. Replace the front cover of the On/Off switch that was removed in **STEP 1**.

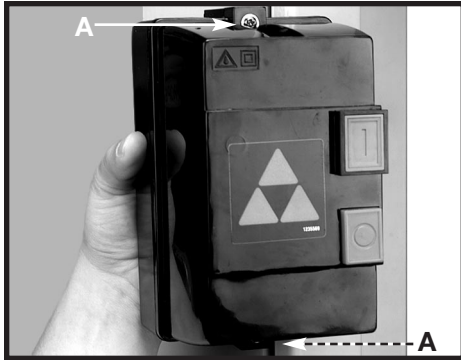


Fig. 3

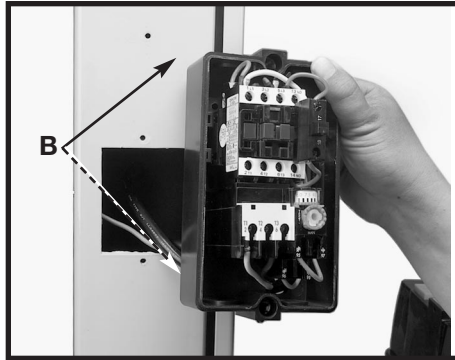


Fig. 4

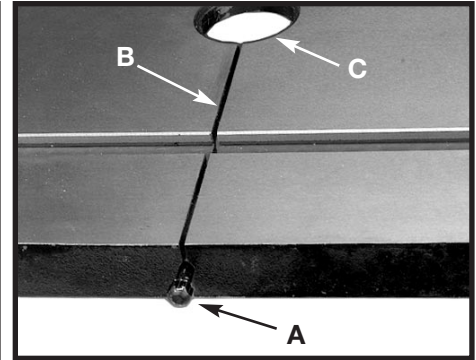


Fig. 5

TABLE

1. Remove the table pin (A) Fig. 5.
2. Remove table tilting lock knob and washer (F) Fig. 5A, from the side of the saw.
3. Align the blade with the table slot. Slide the table until the blade has reached the center cutout (C) Fig. 5, then rotate the table 90 degrees toward the front of the machine.

NOTE: Make sure that the table slot (C) Fig. 6 is facing toward the right of the machine.

4. Align the two table studs (A) Fig. 6, in the bottom of the table, with the two holes in the trunnion assemblies.
5. Thread the trunnion lock knob (D) Fig. 7 onto the table stud. Repeat this process for the other table stud.
6. Thread lock knob and washer (F) Fig. 8, into the tapped hole (G) on the side of the saw, that was removed in **STEP 2**.
7. Replace the table pin that was removed in **STEP 1**.

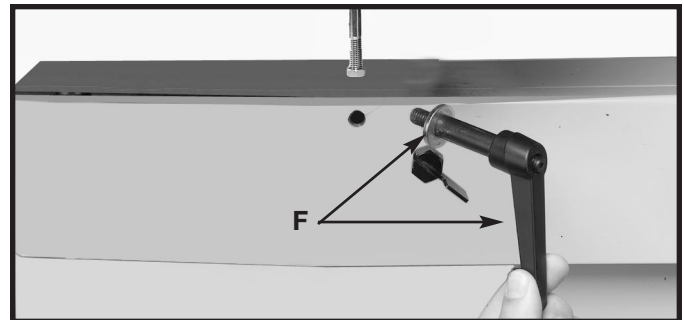


Fig. 5A

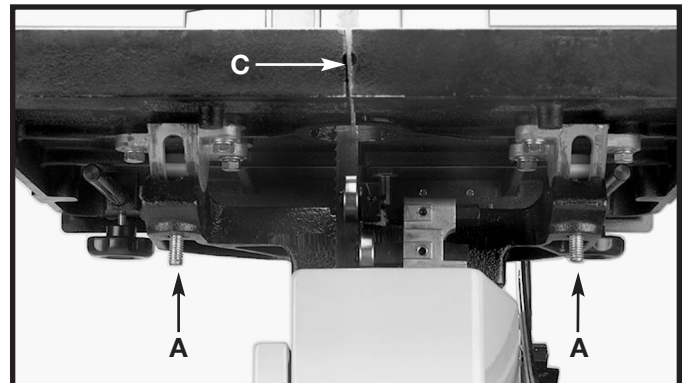


Fig. 6

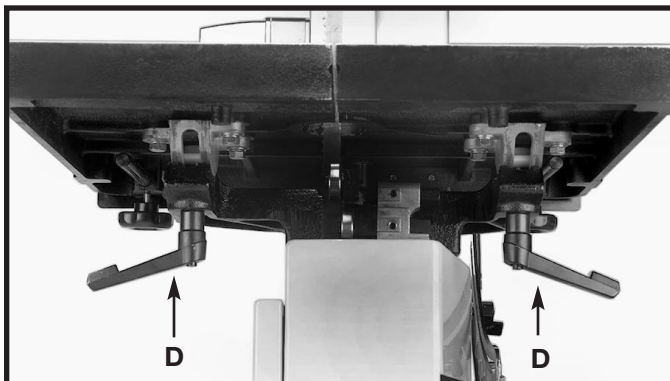


Fig. 7

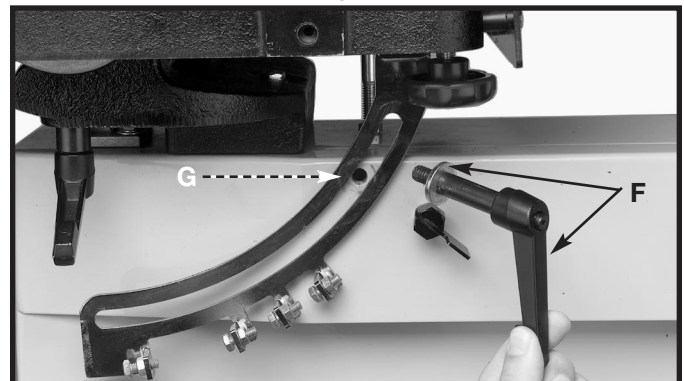


Fig. 8

FENCE

1. Align the two holes (A) Fig. 9 in the front fence rail with the two holes (B) in the front of the table.
NOTE: Make sure that the scale on the front fence rail is facing upward.
2. Insert a 1/4-20 x 1-1/2" socket-head cap screw through one of the holes (A) Fig. 9 hole in the front fence rail. Place a spacer on the screw between the front fence rail and the table. Thread the screw into the front of the table. Repeat for the other hole (A) in the front fence rail. Tighten the two screws securely.
3. Align the two holes (C) Fig. 9A in the rear fence rail with the two holes (D) in the rear of the table.
4. Insert a 1/4-20 x 1" socket head cap screw through one of the holes (C) in the rear fence rail. Thread the screw into the matching hole in the rear of the table. Repeat for the other hole in the rear fence guide and the table. Tighten the two screws securely.
5. Loosen the fence lock knob (E) Fig. 10 and position the opening of the fence bracket over the front guide rail. Slide the fence on the fence guide rail (Fig. 11).
6. Tighten fence lock knob (E) Fig. 11.

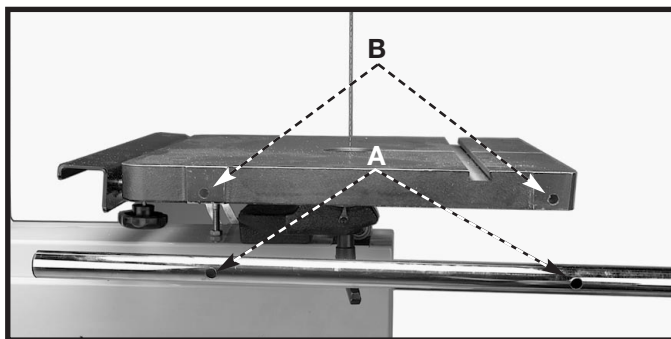


Fig. 9

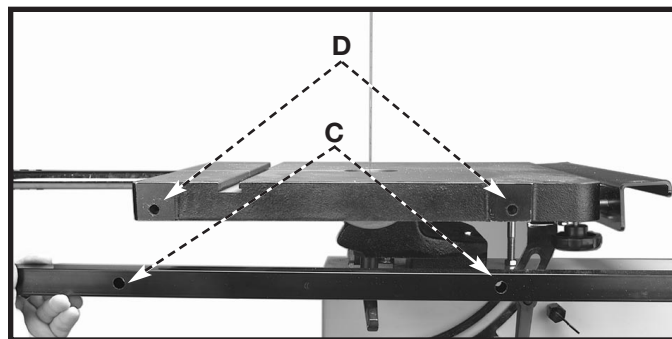


Fig. 9A



Fig. 10



Fig. 11

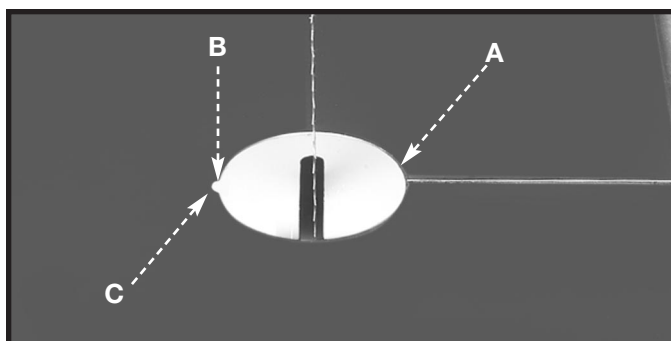


Fig. 12



Fig. 13

TABLE INSERT

Place the table insert (A) Fig. 12 in the table cutout. **NOTE:** A tab (B) is provided on the insert that engages with the notch (C) in the table opening.

FENCE EXTENSION

Loosen the two knobs (A) Fig. 13 to extend the table.

OPERATING CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING SAW

The power switch is located on the left side of the machine. To turn the machine “ON”, push the green start button (A) Fig. 14. To turn the machine “OFF”, push the red stop button (B).

LOCKING SWITCH IN THE “OFF” POSITION

IMPORTANT: When the tool is not in use, the switch should be locked in the “OFF” position to prevent unauthorized use, using a padlock (C) Fig. 15 with a 3/16" diameter shackle.

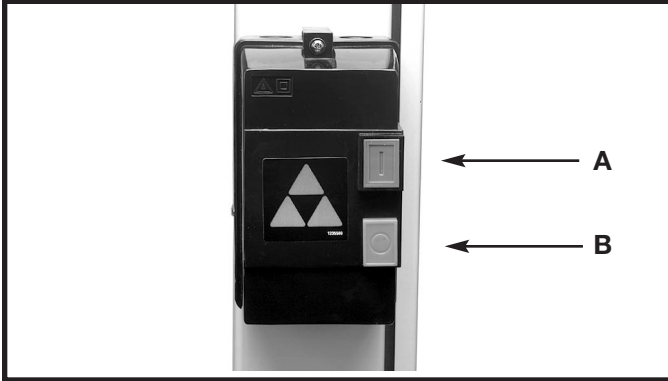


Fig. 14

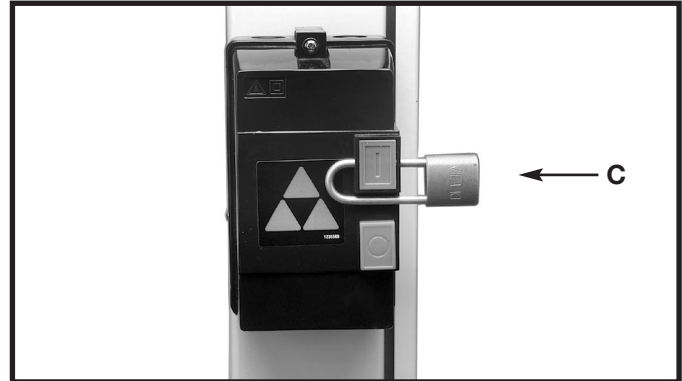


Fig. 15

TILTING THE TABLE

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

The table can be tilted 47 degrees to the right and 5 degrees to the left. To tilt the table to the right, loosen the two clamp handles (one shown at (A) Fig. 16), and bevel lock handle (B) Fig. 16A. Move the stop tab (C) inset out of the way. Tilt the table to the desired angle on the scale (D) Figs. 16, and tighten the two locking handles (A) Fig. 16 and the bevel lock handle (B) Fig. 16A.

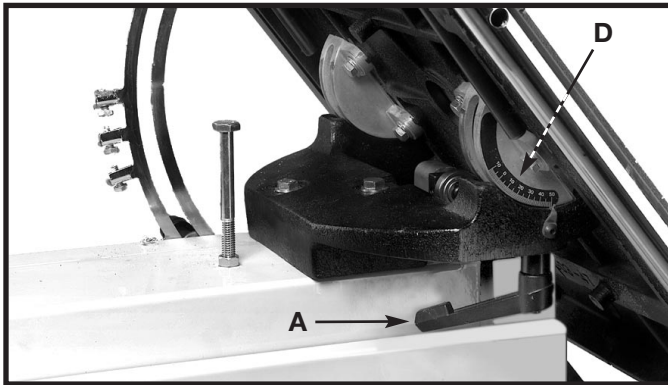


Fig. 16

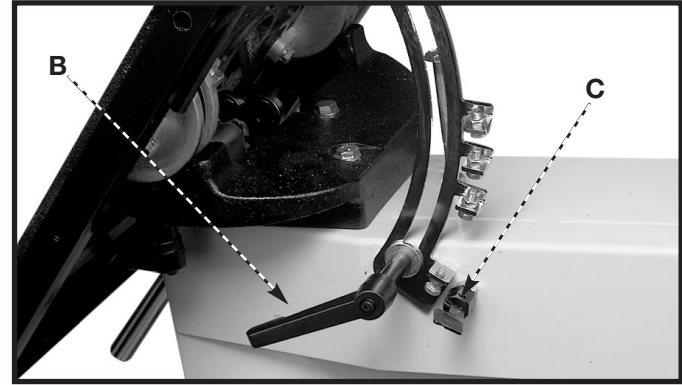


Fig. 16A

ADJUSTING BLADE TENSION

To prevent weakening of the blade, the machine is shipped with the blade under slight tension.

To adjust:

1. Locate the blade tension lever (A) Fig. 17 on top of the machine.
2. Locate the Tension Scale (B) Fig. 17 on the back side of the upper wheel guard.
3. Open the upper and lower doors to see that the blade is situated correctly on both wheels.

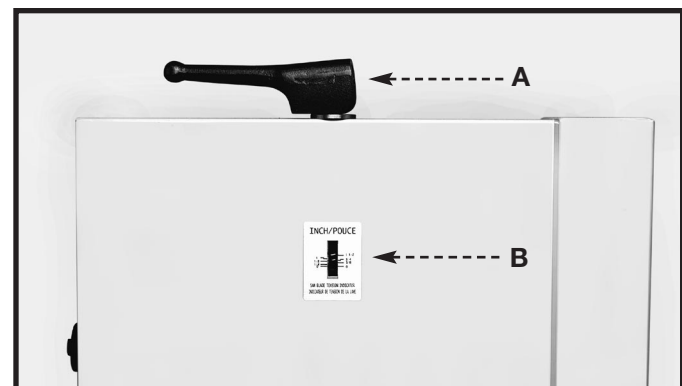


Fig. 17

4. Raise the blade tension lever to the “up” position and turn it clockwise to increase tension or counter-clockwise to relieve the tension.
5. After the first turn, lower the blade tension lever and check the tension scale. If the tension is still not correct, repeat the procedure.

The tension scale is correct for standard blades used on average work. Although you may rely on the feel or tone of the blade, Delta recommends that you use the tension scale to avoid blade breakage by applying too much or too little tension.

NOTE: When the machine is not in use, relax the tension on the blade by lifting the blade tension lever to the “UP” position. **Remember to lower the blade tension lever before using the machine again.**



Fig. 18

TRACKING THE BLADE

For accurate work and maximum blade life, center the blade on the upper wheel. With proper tracking adjustment, the blade will run steadily in the same line. Before adjusting the tracking, move the upper and lower blade guides and blade support bearings away from the sides and back of the blade (See “**ADJUSTING UPPER BLADE GUIDES AND BLADE SUPPORT BEARING**” and “**ADJUSTING LOWER BLADE GUIDES AND BLADE SUPPORT BEARING**” in this manual. Also, tension the blade properly by following the instructions under “**ADJUSTING BLADE TENSION**”.

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

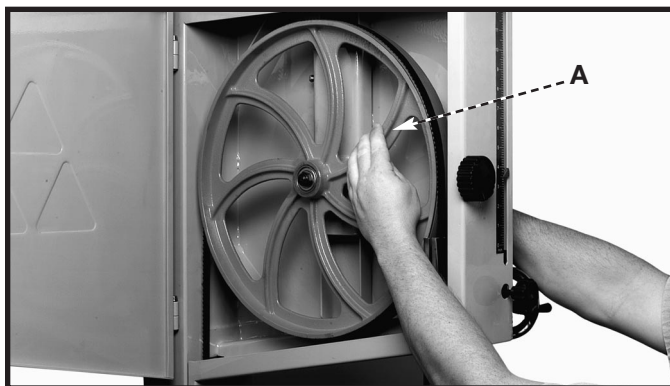


Fig. 19

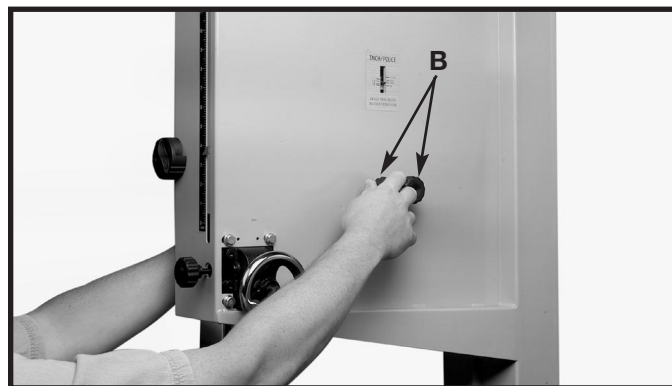


Fig. 20

To adjust:

1. Rotate the upper wheel (A) Fig. 19 forward by hand and turn the tracking adjustment hand knobs (B) Fig. 20 until the blade travels in the center of the upper wheel.

NOTE: Before turning the hand knobs (B) Fig. 19, loosen the locknuts located under the knobs.

2. Connect the machine to the power source and turn the switch “ON” and “OFF” to be certain that proper tracking is maintained.

⚠ WARNING To avoid the possible injury and/or damage to the blade, do not make the initial tracking adjustment while the machine is under power. The blade may run off the wheel instantly at high speed. Adjust the tracking knobs (B) Fig. 20 only a fraction of a turn at a time. Each blade has its own tendencies, especially after welding or brazing. Repeat the blade tracking adjustment each time a new or repaired blade is installed, regardless of prior adjustments.

3. Make any necessary final adjustments at operating speed and tighten the locknuts located under the knobs (B) Fig. 20.

CHANGING SPEEDS

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Open the bottom access door.
2. Release the belt tension by lifting the blade tension lever (C) inset.
3. Move the belt (A) Fig. 20A to the selected motor pulley. (B)
4. Lower the blade tension lever (C) inset.
5. Adjust the blade tension. (See “ADJUSTING BLADE TENSION” section in this manual.
6. Close the access door.

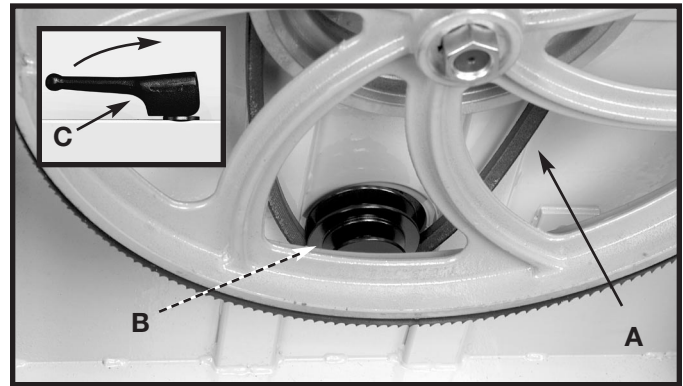


Fig. 20A

ADJUSTING UPPER BLADE GUIDE ASSEMBLY

Set the upper blade guide assembly (A) Fig. 21 as close as possible to the top surface of the workpiece by loosening the lock knob (D) and turning the handle (B) until the guide assembly is in the correct position.

A scale (C) Fig. 21 in increments of 1/8" is located above the assembly.

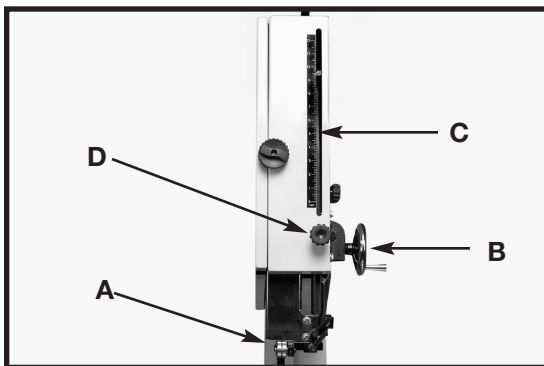


Fig. 21

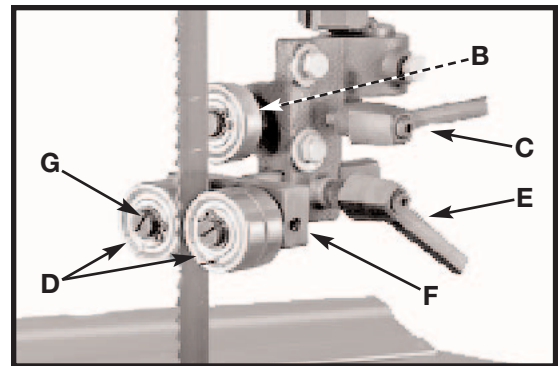


Fig. 22

ADJUSTING UPPER BLADE GUIDE ASSEMBLY AND BLADE SUPPORT BEARING

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

Adjust the blade support bearing (B) Fig. 22 so that it almost touches the back of the saw blade when the blade is tracking properly. To adjust, loosen the indexable locking lever (C) and slide the bracket in or out until the adjustment is correct. Tighten the lever (C). Adjust the blade guide bearings (D) so that they almost touch the sides of the blade by loosening the screw (F) and rotating the bearing on the shaft (G). Tighten the screw (F). Position the front edge of the guide bearings just behind the “gullets” of the saw teeth.

To adjust, loosen indexable locking lever (E) and slide the bearing assembly in or out until the adjustment is correct. Tighten the lever.

ADJUSTING LOWER BLADE GUIDE ASSEMBLY AND BLADE SUPPORT BEARING

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

The lower bearing adjustments are similar to the upper bearing adjustments. Adjust the blade support bearing (A) Fig. 23 so that it almost touches the back of the saw blade. To adjust, loosen hex screw (B) and slide the bracket in or out until the adjustment is correct. Tighten the screw. Adjust the blade guide bearings (C) so that they almost touch the sides of the blade. To adjust, loosen the hex screw (D) and slide the bearing assembly in or out until the adjustment is correct. Tighten the hex screw.

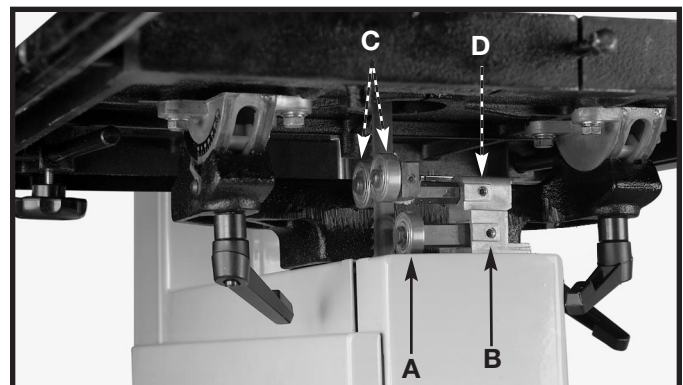


Fig. 23

ADJUSTING THE TABLE POSITIVE STOP

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

This machine is equipped with a positive stop that allows the table to be rapidly positioned at 90 degrees to the blade after the table has been tilted.

To check and adjust:

1. Place the table in the 90 degree position and lock it in place.
2. Place a square (A) Fig. 24 on the table with one end against the blade to check for 90 degrees.
3. If an adjustment is necessary, loosen the locknut (B) Fig. 25 and tighten or loosen the adjusting screw (C) until the head of the screw (C) contacts the bottom (D) of the table when the table is 90 degrees to the blade.
4. Tighten the locknut (B).

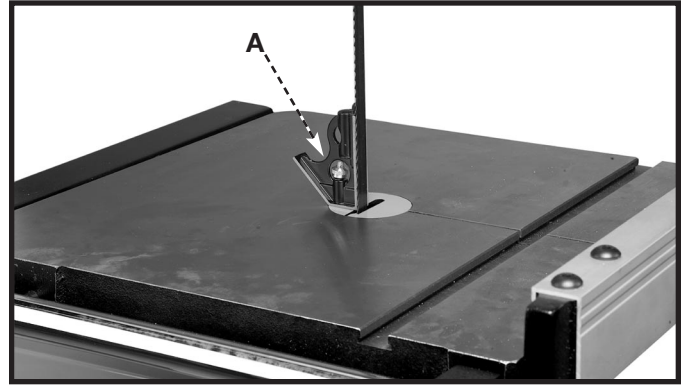


Fig. 24

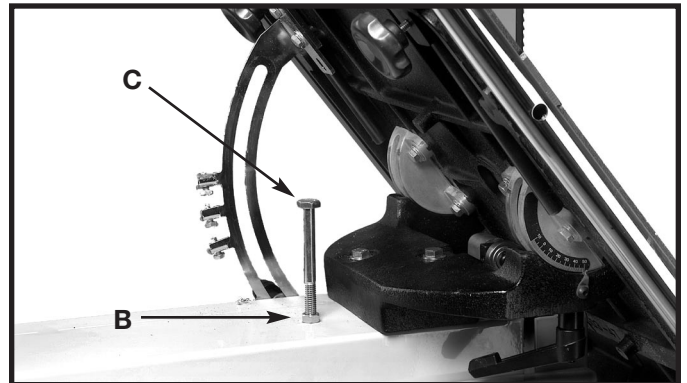


Fig. 25

CHANGING BLADES

NOTE: This machine uses blades that are 136" in length.

To change blades:

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Turn the knobs (A and B) Fig. 26 clockwise to open both the upper and lower doors.
2. Move the Tension Lever (C) to the up position.
3. Remove the table insert (A) Fig. 27 and the table pin (B).
4. Take the blade off both the upper and lower wheels.
5. Turn the blade so that it slides out of the table through the table slot.
6. Reverse the procedure to install a new blade.
7. Adjust the blade tension, track the blade, and adjust both upper and lower blade guides and blade support bearings.

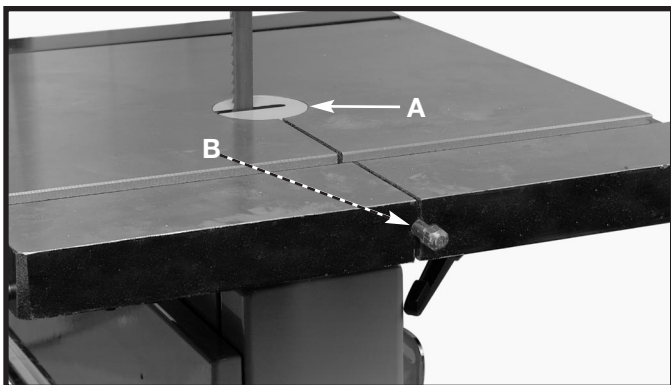


Fig. 27

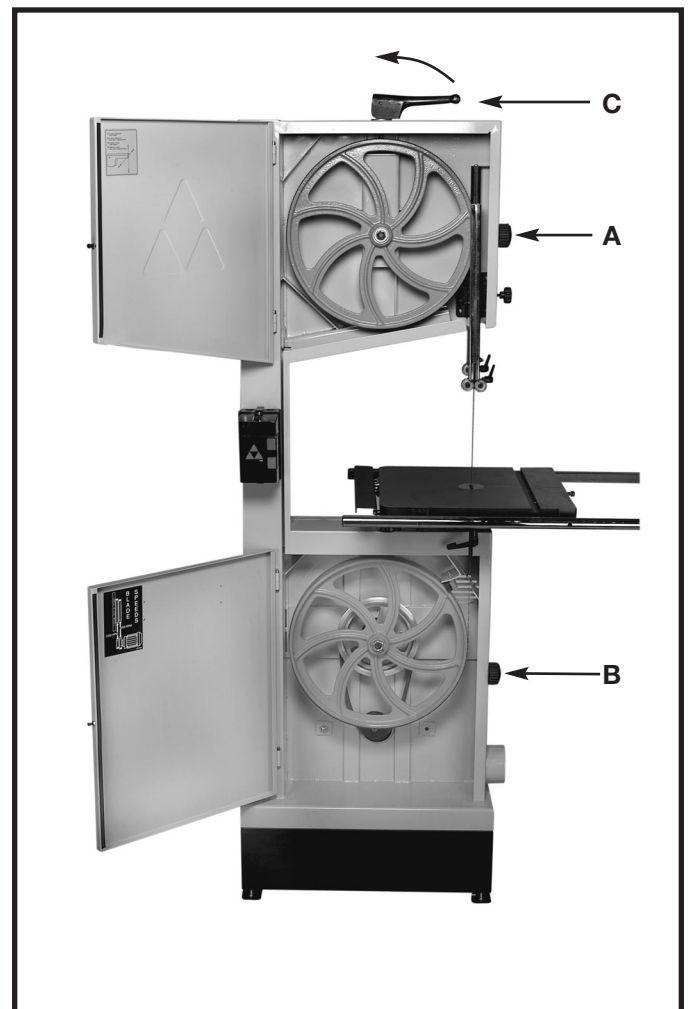


Fig. 26

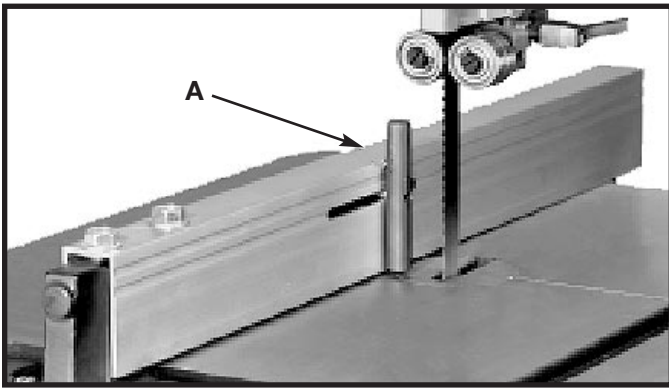


Fig. 28

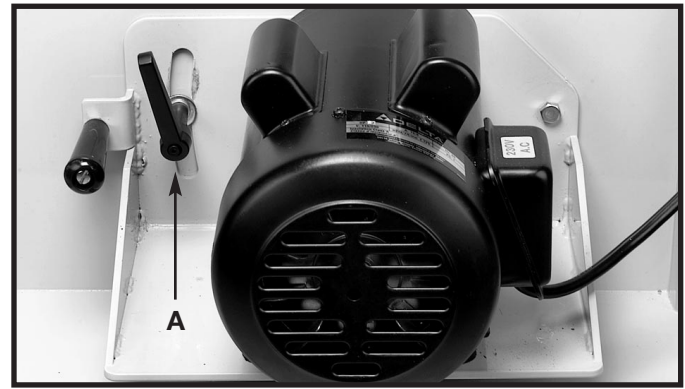


Fig. 28

ADJUSTING RESAW GAUGE

The resaw gauge (A) attaches to the fence (Fig. 28). Slide it along the fence slot until the edge is slightly in front of the blade teeth. Use this gauge for resawing operations and for cutting warped workpieces.

ADJUSTING BELT TENSION

If it becomes necessary to adjust the belt tension on the machine, turn the motor release handle (A) Fig. 28 counter-clockwise. Lower or raise the motor, and when adjustment is complete, tighten the motor release handle (A).

DUST CHUTE

Two dust chutes (A) Fig. 29 are supplied with your machine and can easily be connected to a dust collection system. The O.D. of the dust chutes is 4" in diameter.



Fig. 29

OPERATIONS

Before starting the machine, insure that all adjustments are properly made and the guards are in place. Turn the upper wheel by hand to make sure that everything is correct **BEFORE** turning on the power.

Keep the top guide within 1/8" of the work piece at all times. Do not force the material against the blade. Light pressure on the work piece will produce a smoother cut, and prevent excess friction, and heating of the blade.

KEEP THE SAW BLADE SHARP. Very little forward pressure is required for normal cutting. Keep the workpiece moving at a slow and consistent rate against the blade to ensure a smooth and accurate cut.

Avoid twisting the blade, by trying not to turn sharp corners. Remember, you must saw around corners.

CUTTING CURVES

When cutting curves, turn the stock carefully so that the blade follows without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, a narrower blade, a blade with more set, or additional relief cuts Fig. 39, may be necessary to allow the blade to cut more efficiently. The more set a blade has, the easier it will allow the stock to be turned, but the cut is usually rougher.

When withdrawing the piece being cut, changing the cut, or for any other reason, be careful not to accidentally draw the blade off the wheels. In most cases, it is easier and safer to turn the stock and saw out through the waste material, rather than try to withdraw the stock from the blade.

BAND SAW BLADES

A band saw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain long use from a band saw blade if you use it properly. Be sure you use blades of the proper thickness, width and temper for the various types of material and cuts.

Always use the widest blade possible. Use narrow blades only for sawing small, abrupt curves and for fine, delicate work. This will save blades and will produce better cuts. For cutting wood and similar materials, Delta offers blades in widths of 1/8", 1/4", 3/8", and 1/2".

Any one of a number of conditions may cause a band saw blade to break. Blade breakage is, in some cases, unavoidable, being the natural result of the peculiar stresses to which blades are subjected. Blades will break often due to avoidable causes, such as the lack of care to the blade or the blade not being properly adjusted to the band saw. The most common causes of blade breakage are:

- (1) faulty alignments and adjustments of the guides.
- (2) forcing or twisting a wide blade around a curve of short radius.
- (3) feeding the work piece too fast into the blade.
- (4) dullness of the teeth, or absence of sufficient set.
- (5) improperly tensioned blade.
- (6) top guide set too high above the work piece being cut.
- (7) using a blade with a lumpy or improperly finished braze or weld.
- (8) continuous running of the saw blade when not cutting.

Use blades that are 93½" in length on this machine.

Always use a sharp blade. Keep it free from gum and pitch. Clean frequently with a stiff fiber brush.

Narrow blades are used for cutting small circles or curves while the wider blades are best suited for straight cutting such as ripping.

A new blade, in most cases, will perform better and last longer than a re-sharpened blade.

Insure that the blade guides are adjusted properly.

Do not force or twist the blade around a curve or a very short radius.

Feed the workpiece through the blade at a consistent rate, allow the blade to do the cutting – do not feed the work piece too fast.

Do not apply excessive tension to the blade. The tension is only necessary to drive the blade without slipping on the wheels. Narrow blades require less tension than wider blades.

TROUBLESHOOTING GUIDE

Trouble: *SAW WILL NOT START.*

Probable Cause

1. Saw not plugged in.
2. Fuse blown or circuit breaker tripped.
3. Cord damaged.

Remedy

1. Plug in saw.
2. Replace fuse or reset circuit breaker.
3. Have cord replaced.

Trouble: *BREAKER KICKS OUT FREQUENTLY.*

Probable Cause

1. Extension cord too light or too long.
2. Feeding stock too fast.
3. Blade in poor condition (dull, warped, gummed).
4. Low voltage supply.

Remedy

1. Replace with adequate size cord.
2. Feed stock more slowly.
3. Clean or replace blade.
4. Contact an electrician.

Trouble: *BAND SAW VIBRATES EXCESSIVELY.*

Probable Cause

1. Machine not mounted securely to stand.
2. Stand on uneven surface.
3. Worn belt.
4. Pulley not aligned.
5. Motor not fastened securely.

Remedy

1. Tighten all mounting hardware.
2. Reposition on flat level surface.
3. Replace belt.
4. Adjust pulleys.
5. Tighten all mounting hardware.

Trouble: *BAND SAW DOES NOT COME UP TO SPEED.*

Probable Cause

1. Low voltage due to improper extension cord size.
2. Low voltage.

Remedy

1. Replace with adequate size cord.
2. Contact an electrician.

Trouble: *BLADES BREAK.*

Probable Cause

1. Blade not tensioned properly.
2. Blade guides improperly adjusted.
3. Blade support bearing improperly adjusted.
4. Blade wheel tracking adjustment improperly set.
5. Bad weld on blade.
6. Worn tires.
7. Forcing wide blade around short radius.
8. Dull blade or insufficient set.
9. Upper blade guide set too high.
10. Continuous running of machine when not actually cutting.

Remedy

1. Adjust blade tension.
2. Check and adjust blade guides.
3. Adjust blade support bearing.
4. Check and adjust blade tracking.
5. Replace the blade.
6. Replace tires.
7. Change to a narrower blade.
8. Replace blade.
9. Set upper blade guide within 1/8" of workpiece.
10. Turn off machine when not performing cutting operation.

Trouble: *BLADE WILL NOT TRACK.*

Probable Cause

1. Blade too loose
2. Upper wheel not properly adjusted.
3. Improperly adjusted blade support bearing.

Remedy

1. Adjust tension
2. Adjust upper wheel.
3. Adjust blade support bearing.

Trouble: *CUT DOES NOT AGREE WITH SETTING ON THE TILT SCALE.*

Probable Cause

1. Pointer out of adjustment

Remedy

1. Adjust pointer.

Trouble: *BLADE WILL NOT STAY ON WHEEL.*

Probable Cause

1. Blade not tensioned properly.
2. Blade guides improperly adjusted.
3. Blade support bearing improperly adjusted.
4. Blade wheel not tracking properly.
5. Bad weld on blade.
6. Worn tires.

Remedy

1. Adjust blade tension.
2. Check and adjust blade guides.
3. Adjust blade support bearing.
4. Check and adjust blade tracking.
5. Replace the blade.
6. Replace tires.

Trouble: *BAND SAW MAKES UNSATISFACTORY CUTS.*

Probable Cause

1. Blade not tensioned properly.
2. Blade guides improperly adjusted.
3. Blade support bearing improperly set.
4. Blade wheel not tracking properly.
5. Bad weld on blade.
6. Worn tires.
7. Incorrect blade for work being done.
8. Dull blade or insufficient set.
9. Upper blade guide set too high.

Remedy

1. Adjust blade tension.
2. Check and adjust blade guides.
3. Adjust blade support bearing.
4. Check and adjust blade tracking.
5. Replace the blade.
6. Replace tires.
7. Change the blade.
8. Replace blade.
9. Set upper blade guide within 1/8" of work piece.

ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site www.deltamachinery.com for a catalog or for the name of your nearest supplier.

⚠ WARNING

Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.



PARTS, SERVICE OR WARRANTY ASSISTANCE

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Delta will repair or replace, at its expense and at its option, any new Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. For all refurbished Delta product, the warranty period is 180 days. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

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